Klamath Bird Observatory Spring Point Counts and Fall Area Searches: 2008 Effort Report

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Introduction

In 2008, the Klamath Bird Observatory (KBO) continued implementing bird and habitat monitoring efforts in southwest Oregon and northern California. These Oregon-Washington and California Partners in Flight (PIF) efforts represent collaboration between KBO and the US Forest Service Redwood Sciences Laboratory to maintain the Klamath Bird Monitoring Network (Alexander et al. 2004b). As part of this Network we maintain long-term efforts to track population trends and demographics at constant effort mist netting stations, breeding bird survey routes and extensive point count and area search routes throughout the bioregion. Our 2008 effort represents an extensive partnership involving many cooperators including: Oregon Department of Fish and Wildlife; American Bird Conservancy; Southern Oregon University; Bureau of Land Management Oregon State Office and Medford and Lakeview Districts; National Park Service Klamath Network; Rogue-Siskiyou and Fremont-Winema National Forests; Bureau of Reclamation; Klamath National Wildlife Refuge; United States Geological Survey; Joint Fire Sciences Program; Jackson and Klamath counties, Oregon; Ashland Public Schools; City of Ashland; Rogue Valley Audubon Society; National Fish and Wildlife Foundation; Oregon Watershed Enhancement Board and others. This report summarizes KBO's point count and area search survey efforts. Our demographic monitoring efforts at constant effort mist netting stations are documented in a separate report (Frey et al. 2009).

The objectives of our extensive point count and area search program are to: (1) maintain a long-term monitoring effort for tracking landbird population trends; (2) evaluate the population health of Neotropical migratory and resident birds; (3) study bird and habitat relationships to better understand the ecological effect of land management and restoration; (4) investigate the ecological effects of wildfire and fuels treatments; and (5) use science to link PIF conservation objectives with priority land management issues. In 2008 we conducted bird and habitat surveys for long-term monitoring and avian inventory, as well as in conjunction with studies addressing the relationship between birds and fuels reduction, grazing, and wetland restoration. During the spring breeding season, KBO surveyed 152 routes including 1744 stations and 183 visits, for a total of 2026 point count surveys completed in 2008 (Table 1). In addition, KBO surveyed 24 routes in 33 survey days, consisting of 183 fall area search surveys completed during the dispersal and migration season (Table 2).

Bird and Habitat Surveys

In 2008, Klamath Bird Observatory continued to conduct bird and habitat surveys in southwestern Oregon and northern California. Standard point count and area search survey methodologies were used during breeding and dispersal/migration seasons respectively, and standard vegetation monitoring techniques were followed (Ralph et al. 1993). Point count surveys employ variable circular plot distance sampling methodologies (Alexander et al. 2004a, Fancy 1997). Habitat surveys are conducted using a relévе methodology at all survey locations (Ralph et al. 1993).

Long-term Monitoring

One of the objectives of Partners in Flight's Monitoring Working Group (Hussell and Ralph 1998), and the North American Bird Conservation Initiative's proposed Coordinated Bird Monitoring Program (US NABCI 2007) is to track long-term bird population trends. KBO contributes to this objective by conducting point count surveys on long-term Breeding Bird Survey (BBS) routes, at constant effort mist netting sites, and along additional Klamath Bird Monitoring Network survey routes in the Upper Klamath Basin (Table 1). In addition, KBO continued operating a monitoring route on the Bear Creek Greenway bike path in Ashland, Oregon. In 2008, we began our long-term monitoring project for the National Park Service Klamath Network. Two of the 6 Network parks (Crater Lake National Park, Lassen Volcanic National Park, Lava Beds National Monument, Oregon Caves National Monument, Redwood National and State Parks, and Whiskeytown National Recreation Area) will be surveyed each year, with each park being visited every third year. This year permanent routes were established at Lava Beds National Monument and Redwood National and State Parks and the first year of surveys were completed (Table 1).

Wildfire and Fuels Reduction Treatments

In 2008, KBO's fire research focused on fuels reduction projects at a number of sites within the Klamath-Siskiyou Bioregion. We conducted a second year of spring and fall bird and habitat surveys in the Klamath Canyon where the Lakeview BLM District is implementing fuels treatments in oak woodland habitats (Table 1, Table 2).

In spring and summer of 2008, KBO completed the third and final year of field work for the Riparian Fuels Treatments in the Applegate River Subbasin project funded by the Joint Fire Sciences Program. This is a collaborative multi-taxa study, assessing the effects of fuels reduction in riparian areas on hydrology, macroinvertebrates, botany, herpetafauna, fuel loads and birds. We completed point count surveys, as well as spot mapping and reproductive surveys, to determine the effect of these fuels treatments on bird composition and diversity, as well as reproductive success of six riparian focal species (Table 1). In addition, we completed corresponding vegetation and arthropod surveys, as we hypothesize that the treatments will affect both the habitat and diet of birds.

We completed a second field season of work within Medford BLM's Rogue River Pilot Project, which was initiated in 2006. This project will reduce fuels along the recreational corridor of the Rogue River from Findley Bend to Galice. Point count stations saturate the upland and riparian habitat within the project area. All points were surveyed twice during the spring to create a robust model of the effects of various fuels treatments on the bird communities in the corridor (Table 1).

Restoration

KBO continued several ongoing studies to monitor the effects of restoration efforts. We completed a fourth year of monitoring on a parcel of private property in the Cascade Siskiyou National Monument, which was fenced in 2004 to exclude cattle, as part of our ongoing work to evaluate the effects of grazing on bird communities within the Monument (Table 1). We also assisted with a Rogue Valley Audubon Society citizen's science project implementing year round monitoring efforts in the Monument.

In 2008, KBO completed bird monitoring for the Willow-Witt Ranch, which lies east of Ashland in the Cascade Mountains. Recently, the property has undergone riparian restoration, including the installation of a perimeter fence to eliminate cattle grazing and the planting of 4,500 willows. The ranch, in conjunction with Klamath Bird Observatory, received funding this spring from the Oregon Watershed Enhancement Board to monitor the recovery of native riparian vegetation and to document the flora and fauna on the ranch. KBO completed surveys in spring and fall to gather data about the breeding, resident, and migratory bird communities (Table 1, Table 2).

KBO continued our monitoring efforts at the BLM's Wood River Wetland restoration project (Table 1). The data collected at this important area, and as part of our broad-scale long-term monitoring program in the Upper Klamath Basin, will continue to provide valuable information about the effectiveness of wetland rehabilitation efforts at Wood River.

Conclusion

In 2008 the Klamath Bird Observatory continued working with our partners to maintain our Oregon-Washington and California Partners in Flight long-term monitoring program. These efforts, coupled with our long-term demographic monitoring, and efforts implemented by the US Forest Service Redwood Sciences Laboratory and other partners to monitor birds as part of the Klamath Bird Monitoring Network, represents one of the most comprehensive regional bird monitoring programs in the world. We would like to acknowledge the contractors that completed spring and fall surveys for KBO: Frank Lospalluto, Dave Haupt, Kevin Spencer, Jherime Kellerman, Jim DeStaebler, Lyndia Hammer, Sherri Kies, and David Cothran. Additional thanks to the interns that worked on the riparian fuels treatments project, including Kate Halstead and Graham Ray. We would also like to thank Barbara Massey for her work implementing the Rogue Valley Audubon Society citizen's science project in the Cascade Siskiyou National Monument.

Table 1. KBO point count and vegetation survey effort during spring of 2008 [Spring Stations = number of stations surveyed during spring visits; Spring Visits = number of route visits during spring; Spring Surveys = Total number of surveys during spring].

Project	Site Code	Site Name	Spring Stations	Spring Visits	Spring Surveys
Long-term Monitoring					
Breeding Bird Survey	BALDMNT	Bald Mountain	50	1	50
	BARTLE	Bartle	50	1	50
	MCCLOUD	McCloud	50	1	50
	MEDICINE	Medicine Mountain	50	1	50
	MERRILL	Merrill	50	1	50
	PAUNINA	Paunina	50	1	50
	TIONESTA	Tionesta	50	1	50
Subtotal			350	7	350
Ashland	BIKE	Bike Trail	13	1	13
Subtotal			13	1	13
Mist Netting Sites:	7MIL	Seven Mile	3	1	3
Eastside Cascade	CABN	Cabin	4	1	4
Range	GERB	Gerber	2	1	2
	JOHN	Johnson Creek	5	1	5
	ODES	Odessa Creek	4	1	4
	TOPS	Topsy	4	1	4
	WILL	Williamson River	4	1	4
	WOOD	Wood River	4	1	4
Subtotal			30	8	30
Mist Netting Sites:	ANT1	Antelope Creek	3	1	3
Westside Cascade	ASWA	Ashland Watershed	2	1	2
Range	HCME	Horse Creek Meadow	2	1	2
	JENC	Jefferson Nature Center	4	1	4
	NMTP	North Mountain Park	2	1	2
	ORCA	Oregon Caves	2	1	2
	QUIC	Quines Creek	3	1	3
	WIIM	Wildlife Images	6	1	6
	WIWI	Willow Wind	4	1	4
Subtotal			28	9	28
National Park Service	LB01	Lava Beds 01	12	1	12
Klamath Network	LB02	Lava Beds 02	12	1	12
	LB03	Lava Beds 03	12	1	12
	LB04	Lava Beds 04	12	1	12
	LB05	Lava Beds 05	12	1	12
	LB06	Lava Beds 06	12	1	12
	LB07	Lava Beds 07	12	1	12
	LB08	Lava Beds 08	12	1	12
	LB09	Lava Beds 09	12	1	12
	LB10	Lava Beds 10	12	1	12
	LB11	Lava Beds 11	12	1	12
	LB12	Lava Beds 12	12	1	12
	LB13	Lava Beds 13	12	1	12
	LB14	Lava Beds 14	12	1	12
	LB15	Lava Beds 15	12	1	12
	LB16	Lava Beds 16	12	1	12

Table 1 continued.

Project	Site Code	Site Name	Spring Stations	Spring Visits	Spring Surveys
Long-term Monitoring					
National Park Service	LB17	Lava Beds 17	12	1	12
Klamath Network	LB18	Lava Beds 18	12	1	12
continued	LB19	Lava Beds 19	12	1	12
	LB20	Lava Beds 20	12	1	12
	LB21	Lava Beds 21	12	1	12
	LB22	Lava Beds 22	12	1	12
	LB23	Lava Beds 23	12	1	12
	LB24	Lava Beds 24	12	1	12
	LB25	Lava Beds 25	12	1	12
	RW01	Redwoods 01	6	1	6
	RW02	Redwoods 02	4	1	4
	RW03	Redwoods 03	6	1	6
	RW04	Redwoods 04	8	1	8
	RW05	Redwoods 05	6	1	6
	RW06	Redwoods 06	6	1	6
	RW07	Redwoods 07	6	1	6
	RW08	Redwoods 08	6	1	6
	RW09	Redwoods 09	6	1	6
	RW10	Redwoods 10	6	1	6
	RW11	Redwoods 11	6	1	6
	RW12	Redwoods 12	7	1	7
	RW13	Redwoods 13	8	1	8
	RW14	Redwoods 14	6	1	6
	RW15	Redwoods 15	6	1	6
	RW16	Redwoods 16	7	1	7
	RW17	Redwoods 17	8	1	8
	RW18	Redwoods 18	6	1	6
	RW19	Redwoods 19	6	1	6
	RW20	Redwoods 20	6	1	6
	RW21	Redwoods 21	9	1	9
	RW22	Redwoods 22	6	1	6
	RW23	Redwoods 23	6	1	6
	RW24	Redwoods 24	8	1	8
	RW25	Redwoods 25	6	1	6
	RW26	Redwoods 26	6	1	6
	RW27	Redwoods 27	6	1	6
	RW28	Redwoods 28	8	1	8
	RW29	Redwoods 29	6	1	6
	RW30	Redwoods 30	6	1	6
Subtotal			493	55	493
Upper Klamath	AGLA	Agency Lake	17	1	17
	CANU	Canoe	20	1	20
	CHICKB	Chicken Hill B	15	1	15
	CHICKC	Chicken Hill C	25	1	25
	GERBER	Gerber Reservoir	25	1	25
	MAEG	Mare's Egg	22	1	22
	PEBA	Pelican Bay	23	1	23
	SOBU	Solomon Butte	15	1	15
	SPCR	Spencer Creek	22	1	22
	STMT	Stukel Mountain	25	1	25
	SURD	Surveyor Mountain D	20	1	20

Table 1 continued.

Project	Site Code	Site Name	Spring Stations	Spring Visits	Spring Surveys
Long-term Monitoring					
Upper Klamath	SURE	Surveyor Mountain E	20	1	20
continued	SUVA	Surveyor Mountain A	25	1	25
	TOPSY	Topsy	15	1	15
Subtotal			289	14	289
Wildfire and Fuels Reduction Treatments					
Applegate Valley	BVR1	Beaver Creek 1	6	1	6
	BVR2	Beaver Creek 2	6	1	6
	FTS1	Foots Creek 1	6	1	6
	FTS2	Foots Creek 2	6	1	6
	STR1	Star Gulch 1	6	1	6
	STR2	Star Gulch 2	6	1	6
	UST1	Upper Star Gulch 1	6	1	6
	UST2	Upper Star Gulch 2	6	1	6
Subtotal			48	8	48
Klamath Canyon	BEFL	Bear Flat	13	2	26
	DWNO/DWSO/	Double Wood Pole North and South/			
	KCNO	Klamath Canyon North	5	2	10
	GRBU	Grizzly Butte	8	2	16
	HADN	Hayden	10	2	20
	KLRI/KCEA/	Klamath River/ Klamath Canyon East and			
	KCWE	West	10	2	20
	KR10	Klamath River Canyon 10	10	1	10
	KR11	Klamath River Canyon 11	8	1	8
	KR12	Klamath River Canyon 12	7	1	7
	KRC1	Klamath River Canyon 1	12	1	12
	KRC2	Klamath River Canyon 2	12	1	12
	KRC3	Klamath River Canyon 3	12	1	12
	KRC4	Klamath River Canyon 4	11	1	11
	KRC5	Klamath River Canyon 5	10	1	10
	KRC6	Klamath River Canyon 6	11	1	11
	KRC7	Klamath River Canyon 7	11	1	11
	KRC8	Klamath River Canyon 8	11	1	11
	KRC9	Klamath River Canyon 9	8	1	8
	RANO/RASO	Rapids North and South	7	2	14
	SPRG	Springs	7	2	14
	SWEA/SWWE	Single Wood Pole East and West	13	2	26
	WCNO/WCSO	Way Cem North and South	8	2	16
Subtotal			204	30	285
Rogue River	RRP01	Rogue River Pilot 1	8	2	16
Pilot Project	RRP02	Rogue River Pilot 2	11	2	22
	RRP03	Rogue River Pilot 3	9	2	18
	RRP04	Rogue River Pilot 4	11	2	22
	RRP05	Rogue River Pilot 5	9	2	18
	RRP06	Rogue River Pilot 6	10	2	20
	RRP07	Rogue River Pilot 7	9	2	18
	RRP08	Rogue River Pilot 8	8	2	16
	RRP09	Rogue River Pilot 9	13	2	26
	RRP11	Rogue River Pilot 11	13	2	26
	RRP12	Rogue River Pilot 12	6	2	12

Table 1 continued.

Project	Site Code	Site Name	Spring Stations	Spring Visits	Spring Surveys
Wildfire and Fuels Reduction Treatments					
Rogue River	RRP13	Rogue River Pilot 13	10	2	20
Pilot Project	RRP14	Rogue River Pilot 14	9	2	18
continued	RRP15	Rogue River Pilot 15	6	2	12
	RRP16	Rogue River Pilot 16	4	2	8
	RRP17	Rogue River Pilot 17	12	2	24
	RRP18	Rogue River Pilot 18	8	2	16
	RRP19	Rogue River Pilot 19	9	2	18
	RRP20	Rogue River Pilot 20	12	2	24
	RRP21	Rogue River Pilot 21	5	2	10
	RRP22	Rogue River Pilot 22	6	2	12
	RRPBT	Rogue River Pilot Boat	13	2	26
Subtotal			201	44	402
Restoration					
Cascade Siskiyou National Monument	CLAY	Clayton Property	12	1	12
Subtotal			12	1	12
Upper Klamath Basin	NODM/UPWR	North Marsh/Upper Wildlife Refuge	16	1	16
Wood River Wetland	PEDI/SODI/	Petric Dike/South Dike/	16	1	16
	SOSP/LOWR	South Spit/Lower Wood River			
	SMDI	Sevenmile Dike	14	1	14
Subtotal			46	3	46
Willow Witt Ranch	WWIT01	Willow Witt 01	10	1	10
	WWIT02	Willow Witt 02	9	1	9
	WWIT03	Willow Witt 03	12	1	12
Subtotal			31	3	31
Grand Total			1745	183	2027

Table 2. KBO area search and vegetation survey effort during fall of 2008 [Fall Stations = number of stations surveyed during fall visits; Survey Days = number of survey days to complete the route in fall].

Project	Route Code	Route Name	Fall Stations	Fall Visits
Wildfire and Fuels Reduction Treatments				
Klamath Canyon	BEFL	Bear Flat	13	2
	DWNO/DWSO/	Double Wood Pole North and South/		
	KCNO	Klamath Canyon North	5	2
	GRBU	Grizzly Butte	8	2
	HADN	Hayden	10	2
	KLRI/KCEA/	Klamath River/ Klamath Canyon East and		
	KCWE	West	10	2
	KR10	Klamath River Canyon 10	6	1
	KR11	Klamath River Canyon 11	6	1
	KR12	Klamath River Canyon 12	5	1
	KRC1	Klamath River Canyon 1	6	1
	KRC2	Klamath River Canyon 2	6	1
	KRC3	Klamath River Canyon 3	6	1
	KRC4	Klamath River Canyon 4	6	1
	KRC5	Klamath River Canyon 5	6	1
	KRC6	Klamath River Canyon 6	6	1
	KRC7	Klamath River Canyon 7	6	1
	KRC8	Klamath River Canyon 8	6	1
	KRC9	Klamath River Canyon 9	6	1
	RANO/RASO	Rapids North and South	7	2
	SPRG	Springs	7	2
	SWEA/SWWE	Single Wood Pole East and West	13	2
	WCSO/WCNO	Way Cem North and South	8	2
Subtotal			152	30
Restoration				
Willow Witt Ranch	WWIT01	Willow Witt 01	10	1
	WWIT02	Willow Witt 02	9	1
	WWIT03	Willow Witt 03	12	1
Subtotal			31	3
Grand Total			183	33

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